

REMARKS:

The Office Action dated June 22, 2007 has been received and carefully reviewed. It is submitted that by this response, all bases of rejection and objection are traversed. Upon entry of this response, claims 1-23 remain in the application. Reconsideration is respectfully requested.

Claims 1-23 stand rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative under 35 U.S.C. 103(a) as obvious over Jones (US Patent 3,303,233). The Jones reference provides an alkylating agent which when condensed with an alkylable aromatic compound produces an alkylate having a structure suitable for the production of biologically soft detergents (Col. 2, lines 59-65). Jones teaches that in order to produce an alkylaryl intermediate having a relatively straight chain structure, the alkylating agent condensed with the aromatic receptor must have a relatively straight chain structure, since, at best, the alkyl chain attaching to the aromatic nucleus will have a secondary structure, even if a normal 1-olefin is utilized (Col. 3, lines 56-66). The condensation reaction taught with Jones uses an acid catalyst such as sulfuric acid, or preferably hydrofluoric acid (Col. 8, lines 18-34). And from the Example 1 in Jones teaches that the product consists of secondary alkylbenzenes where the alkyl group has the following structure:

-CHR₁R₂,

in which R₁ and R₂ are normal or straight chain alkyl radicals, and that "a substantial proportion of the product" has the structure in which R₁ is a methyl and R₂ is n-tridecyl (Col. 11, lines 1-14). However, the Jones process is homogeneous acid catalyzed, and while producing a product with relatively more straight chained alkyl groups because it starts with a high concentration of straight chained alkylating agent, it only produces approximately 20% of this desired product with much more branched alkylbenzenes, and is known to those skilled in the art. The present invention, in the amended claims 1, 16, 17 and 21, uses a solid, molecular sieve catalyst. This solid catalyst is a physically constraining catalyst which limits undesired reactions and produces a much higher LAB (linear alkylbenzene) content in the product, and subsequently a much higher quality

intermediate for converting to detergent. Therefore, it is submitted that the amended claims 1, 16, 17 and 21 are not taught, anticipated or rendered obvious by the reference. Claims 2-15, 18-20 and 22-23 are dependent, either directly or indirectly from claims 1, 16, 17 and 21 and through this dependence are not taught, anticipated or rendered obvious. Reconsideration is respectfully requested.

In summary, claims 1-23 remain in the application. Claims 1, 16, 17 and 21 have been amended and by this amendment no new matter has been added. The amendment has been made to clarify the claim scope. Accordingly in view of the amendment and remarks, applicants assert that claims 1-23 meet all statutory requirements and respectfully request allowance of all pending claims. If the examiner believes it would expedite prosecution of the above identified application he is cordially invited to contact applicants' attorney at the below listed telephone number.

Respectfully submitted,

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